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**Technical Table 1. The NSF data collection series: 1966-1998**

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Year	Number of institutions surveyed	Number of reporting units surveyed	Number of departments surveyed			Graduate enrollment in surveyed fields		
			Total	Master's	Doctorate	Total	Full-time	Part-time
A. Graduate Traineeship Program								
1966 .....	204	204	2,866	441	2,425	169,303	124,255	45,048
1967 .....	209	209	3,014	434	2,580	179,622	133,972	45,650
1968 .....	219	219	3,190	454	2,736	184,759	140,714	44,045
1969 .....	224	224	3,354	460	2,894	196,341	147,515	48,826
1970 .....	227	227	3,544	473	3,071	201,918	153,250	48,668
1971 <sup>1</sup> .....	224	249	3,397	407	2,990	214,680	164,764	49,916
B. Survey of Graduate Students and Postdoctorates in Science and Engineering <sup>2</sup>								
Doctorate institutions:								
1972 .....	260	328	4,593	780	3,813	210,895	161,329	49,566
1973 .....	259	336	6,538	859	5,679	214,459	161,582	52,877
1974 .....	280	370	7,485	1,398	6,087	260,312	190,665	69,647
1975 .....	330	427	7,920	1,740	6,180	295,718	207,494	88,224
1976 .....	339	437	8,015	1,794	6,221	299,916	211,288	88,628
1977 .....	340	442	8,230	1,914	6,316	307,763	213,343	94,420
1978 .....	318	426	8,193	1,803	6,390	300,854	209,198	91,656
1979 .....	356	471	8,469	1,979	6,490	317,086	217,546	99,540
1980 .....	355	470	8,572	2,025	6,547	326,608	223,720	102,888
1981 .....	353	466	8,495	2,020	6,475	333,270	227,523	105,747
1982 .....	350	464	8,350	2,004	6,346	339,776	230,599	109,177
1983 .....	349	463	8,225	1,967	6,258	346,591	236,520	110,071
1984 .....	336	454	8,222	1,931	6,291	348,895	237,542	111,353
1985 .....	336	449	8,334	1,970	6,364	358,255	241,149	117,106
1986 .....	336	451	8,408	1,982	6,426	368,840	249,850	118,990
1987 .....	340	457	8,521	1,984	6,537	374,375	254,415	119,960
1988 .....	354	472	8,776	2,077	6,699	380,160	259,897	120,263
1989 .....	355	473	8,898	2,090	6,808	387,632	267,094	120,538
1990 .....	354	472	9,039	2,133	6,906	401,323	275,768	125,555
1991 .....	354	472	9,232	2,152	7,080	416,646	288,250	128,396
1992 .....	354	472	9,470	2,200	7,270	435,696	302,226	133,470
1993 .....	354	472	9,660	2,210	7,450	443,757	308,195	135,562
1994 .....	353	471	9,869	2,265	7,604	444,093	309,817	134,276
1995 .....	352	470	10,045	2,317	7,728	438,306	306,125	132,181
1996 .....	353	471	10,059	2,366	7,693	432,812	304,720	128,092
1997 .....	352	474	10,032	2,433	7,599	426,032	302,338	123,694
1998 .....	352	473	10,117	2,446	7,671	422,834	301,544	121,290

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 1. The NSF data collection series: 1966-1998**

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Year	Number of institutions surveyed	Number of reporting units surveyed	Number of departments surveyed			Graduate enrollment in surveyed fields		
			Total	Master's	Doctorate	Total	Full-time	Part-time
<b>Master's institutions:</b>								
1975 <sup>3</sup>	256	256	1,085	1,085	N/A	32,832	12,193	20,639
1976	257	257	1,097	1,097	N/A	33,839	12,158	21,681
1977	263	263	1,164	1,164	N/A	37,653	13,433	24,220
1978 <sup>4</sup>	282	282	1,317	1,317	N/A	39,058	13,832	25,226
1979	275	275	1,219	1,219	N/A	40,523	14,244	26,279
1980	273	273	1,228	1,228	N/A	40,503	14,728	25,775
1981	271	271	1,235	1,235	N/A	41,888	14,553	27,335
1982	261	261	1,236	1,236	N/A	42,558	14,197	28,361
1983	261	261	1,244	1,244	N/A	43,883	15,535	28,348
1984 <sup>5</sup>	76	76	570	570	N/A	45,775	16,380	29,395
1985 <sup>5</sup>	76	76	578	578	N/A	45,766	16,138	29,628
1986 <sup>5</sup>	76	76	579	579	N/A	46,702	16,332	30,370
1987 <sup>5</sup>	76	76	585	585	N/A	47,137	16,651	30,486
1988	252	252	1,242	1,242	N/A	44,453	15,297	29,156
1989	254	254	1,292	1,292	N/A	46,935	15,625	31,310
1990	256	256	1,322	1,322	N/A	50,855	17,062	33,793
1991	255	255	1,369	1,369	N/A	54,616	18,790	35,826
1992	254	254	1,408	1,408	N/A	57,936	20,383	37,553
1993	252	252	1,452	1,452	N/A	60,692	21,484	39,208
1994	252	252	1,506	1,506	N/A	60,449	22,312	38,137
1995	251	251	1,532	1,532	N/A	61,426	23,023	38,403
1996	250	250	1,532	1,532	N/A	61,407	23,733	37,674
1997	249	249	1,573	1,573	N/A	61,339	24,711	36,628
1998	249	249	1,601	1,601	N/A	62,920	26,065	36,855

1 The 1972 survey also collected selected data for 1971.

2 The name of the survey was changed in 1981 to specify the inclusion of engineering.

3 The 1976 survey also collected 1975 data from master's-granting institutions.

4 Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

5 Master's-granting institutions were surveyed on a sample basis from 1984 through 1987.

**KEY:** N/A = Not applicable

**SOURCE:** National Science Foundation/Division of Science Resources Studies, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 2. Number of science, engineering, and health departments  
in doctorate-granting institutions, by detailed field: 1990-1998**

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Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all surveyed fields .....	9,039	9,232	9,470	9,660	9,869	10,045	10,059	10,032	10,117
Total, science and engineering fields .....	6,523	6,675	6,830	6,922	7,061	7,181	7,175	7,191	7,257
Sciences, total .....	5,284	5,398	5,516	5,586	5,689	5,783	5,763	5,758	5,802
Physical sciences, total .....	550	558	563	566	567	576	570	572	576
Astronomy .....	33	33	33	34	34	35	35	35	36
Chemistry .....	265	267	268	268	266	267	267	268	267
Physics .....	238	245	247	249	252	254	250	253	255
Physical sciences, n.e.c. .....	14	13	15	15	15	20	18	16	18
Earth, atmos., & ocean sci., total .....	309	321	323	327	336	350	347	349	358
Atmospheric sciences .....	28	29	29	31	32	33	33	32	33
Geosciences .....	194	202	203	203	207	211	211	208	207
Oceanography .....	42	45	45	45	46	50	48	49	54
Earth, atmos., & ocean sci., n.e.c. .....	45	45	46	48	51	56	55	60	64
Mathematical sciences, total .....	362	368	375	381	388	393	393	391	388
Mathematics & applied mathematics .....	295	299	300	304	308	312	311	310	308
Statistics .....	67	69	75	77	80	81	82	81	80
Computer sciences .....	235	242	253	256	263	274	281	284	291
Agricultural sciences .....	295	303	315	312	318	324	318	328	333
Biological sciences, total .....	1,832	1,874	1,913	1,958	1,985	2,000	1,980	1,952	1,972
Anatomy .....	107	106	105	104	104	101	100	96	93
Biochemistry .....	183	187	190	190	191	192	191	191	191
Biology .....	237	235	237	236	235	235	237	244	248
Biometry/epidemiology .....	51	56	61	69	71	72	72	71	72
Biophysics .....	31	33	33	33	33	33	34	31	31
Botany .....	104	104	102	103	104	101	98	95	94
Cell biology .....	92	96	104	110	118	121	121	122	135
Ecology .....	26	27	28	27	31	31	30	30	31
Entomology/parasitology .....	48	49	48	49	49	48	48	48	49
Genetics .....	67	72	76	79	82	84	83	82	82
Microbio., immunology, & virology .....	237	243	249	260	261	265	264	254	258
Nutrition .....	104	109	113	116	121	125	124	122	123
Pathology .....	143	147	145	143	143	144	139	138	136
Pharmacology .....	162	163	166	167	168	168	163	158	157
Physiology .....	145	146	146	146	144	146	144	138	133
Zoology .....	49	49	47	50	50	49	45	41	40
Biosciences, n.e.c. .....	46	52	63	76	80	85	87	91	99
Psychology, total .....	471	493	516	521	537	553	558	565	569
Psychology, general .....	171	170	168	165	167	167	163	167	171
Clinical psychology .....	102	107	112	115	117	124	128	129	128
Psychology, n.e.c. .....	198	216	236	241	253	262	267	269	270
Social sciences, total .....	1,230	1,239	1,258	1,265	1,295	1,313	1,316	1,317	1,315
Agricultural economics .....	52	52	53	52	53	54	54	54	54
Anthropology (cultural & social) .....	122	126	128	130	132	135	135	138	135
Economics (except agricultural) .....	195	197	201	201	204	203	197	197	195
Geography .....	96	97	99	99	100	101	99	100	101
History and philosophy of science .....	23	21	19	20	21	21	23	23	23
Linguistics .....	69	71	70	69	69	70	72	71	70
Political science .....	305	307	313	318	324	330	331	333	335
Sociology .....	174	175	175	176	177	178	175	172	172
Sociology/anthropology .....	30	28	28	25	26	25	25	25	24
Social sciences, n.e.c. .....	164	165	172	175	189	196	205	204	206
Engineering, total .....	1,239	1,277	1,314	1,336	1,372	1,398	1,412	1,433	1,455
Aerospace engineering .....	42	44	48	50	52	53	52	54	54
Agricultural engineering .....	41	41	41	40	38	38	38	38	38
Biomedical engineering .....	50	51	56	56	57	59	61	64	72
Chemical engineering .....	134	139	140	140	141	141	143	143	143
Civil engineering .....	187	194	200	202	212	218	227	231	234
Electrical engineering .....	200	208	216	218	225	230	234	238	242
Engineering science .....	35	36	37	39	41	39	36	36	38
Industrial eng./manufacturing eng. .....	127	134	138	147	156	159	162	163	163
Mechanical engineering .....	176	179	184	184	186	188	188	188	188
Metallurgical/materials eng. ....	89	96	101	101	104	106	107	112	113
Mining engineering .....	27	28	28	30	29	26	24	24	24
Nuclear engineering .....	26	26	25	25	26	26	24	23	24
Petroleum engineering .....	20	20	20	20	20	21	20	18	17
Engineering, n.e.c. ....	85	81	80	84	85	94	96	101	105

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 2. Number of science, engineering, and health departments  
in doctorate-granting institutions, by detailed field: 1991-1998**

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Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, health fields .....	2,516	2,557	2,640	2,738	2,808	2,864	2,884	2,841	2,860
Medical fields, total .....	1,881	1,914	1,963	2,031	2,083	2,121	2,122	2,064	2,065
Anesthesiology .....	85	87	87	87	89	89	91	90	90
Cardiology .....	67	67	68	69	70	71	71	71	72
Oncology/cancer research .....	36	38	45	48	50	55	57	61	62
Endocrinology .....	74	74	73	72	74	74	74	71	71
Gastroenterology .....	65	65	66	68	71	71	71	68	68
Hematology .....	67	67	69	71	73	73	72	71	69
Neurology .....	130	135	137	145	153	154	151	154	156
Obstetrics and gynecology .....	92	92	95	96	96	96	95	90	91
Ophthalmology .....	80	80	80	81	81	81	79	79	79
Otorhinolaryngology .....	70	70	70	71	72	72	72	68	64
Pediatrics .....	107	107	109	111	115	116	118	111	112
Preventive medicine/community health .....	165	166	173	178	182	186	187	186	193
Psychiatry .....	101	100	101	103	107	107	104	101	100
Pulmonary disease .....	63	62	64	67	68	69	68	66	67
Radiology .....	128	131	135	137	139	141	138	134	129
Surgery .....	221	233	238	246	251	257	259	245	244
Clinical medicine, n.e.c. .....	330	340	353	381	392	409	415	398	398
Other health fields, total .....	635	643	677	707	725	743	762	777	795
Dental sciences .....	78	76	82	87	84	83	82	77	74
Nursing .....	123	126	132	136	140	146	144	149	153
Pharmaceutical sciences .....	83	84	89	91	92	94	97	95	96
Speech pathology/audiology .....	127	128	131	134	136	137	138	140	141
Veterinary sciences .....	41	41	42	44	45	46	46	47	48
Health related, n.e.c. .....	183	188	201	215	228	237	255	269	283

**KEY:** n.e.c. = Not elsewhere classified

**SOURCE:** National Science Foundation/Division of Science Resource Studies, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 3. Number of science, engineering, and health departments  
in master's-granting institutions, by detailed field: 1990-1998**

Page 1 of 2

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all surveyed fields .....	1,322	1,369	1,408	1,452	1,506	1,532	1,532	1,573	1,601
Total, science and engineering fields .....	1,171	1,205	1,233	1,270	1,313	1,325	1,313	1,342	1,362
Sciences, total .....	1,002	1,036	1,065	1,099	1,136	1,145	1,140	1,161	1,177
Physical sciences, total .....	117	120	118	123	124	121	117	121	121
Astronomy .....	0	0	0	0	0	0	0	0	0
Chemistry .....	79	79	79	79	79	75	73	74	73
Physics .....	30	31	30	32	32	32	31	32	32
Physical sciences, n.e.c. ....	8	10	9	12	13	14	13	15	16
Earth, atmos., & ocean sci., total .....	50	53	56	55	57	63	63	66	68
Atmospheric sciences .....	1	1	1	1	1	2	2	2	2
Geosciences .....	29	30	29	28	29	30	30	31	31
Oceanography .....	5	5	6	6	6	6	5	6	6
Earth, atmos., & ocean sci., n.e.c. ....	15	17	20	20	21	25	26	27	29
Mathematical sciences, total .....	95	98	101	107	108	108	107	111	110
Mathematics & applied mathematics .....	92	94	97	101	102	102	102	106	105
Statistics .....	3	4	4	6	6	6	5	5	5
Computer sciences .....	75	77	81	86	90	91	92	92	94
Agricultural sciences .....	24	25	26	26	32	33	31	30	31
Biological sciences, total .....	170	174	175	173	172	176	174	176	178
Anatomy .....	0	0	0	0	0	0	0	0	0
Biochemistry .....	2	2	2	3	4	4	4	4	4
Biology .....	135	137	136	132	130	130	131	131	131
Biometry/epidemiology .....	0	1	0	0	0	0	0	0	0
Biophysics .....	0	0	0	0	0	0	0	0	0
Botany .....	3	3	3	2	2	2	2	2	2
Cell biology .....	0	0	0	1	1	2	1	3	3
Ecology .....	3	3	3	3	3	3	2	4	4
Entomology/parasitology .....	0	0	0	0	0	0	0	0	0
Genetics .....	1	1	1	1	1	1	1	1	1
Microbio., immunology, & virology .....	2	2	2	2	2	2	2	3	2
Nutrition .....	9	9	11	12	13	15	15	13	15
Pathology .....	2	2	2	2	2	2	2	1	1
Pharmacology .....	1	1	1	1	0	0	0	0	1
Physiology .....	0	0	0	0	0	0	0	0	0
Zoology .....	2	3	3	2	2	2	2	2	2
Biosciences, n.e.c. ....	10	10	11	12	12	13	12	12	12
Psychology, total .....	202	208	220	231	239	236	239	247	248
Psychology, general .....	91	92	87	90	90	89	91	92	92
Clinical psychology .....	23	23	29	30	34	34	34	36	37
Psychology, n.e.c. ....	88	93	104	111	115	113	114	119	119
Social sciences, total .....	269	281	288	298	314	317	317	318	327
Agricultural economics .....	2	2	3	4	4	4	4	4	4
Anthropology (cultural & social) .....	11	11	11	11	11	11	11	12	12
Economics (except agricultural) .....	32	33	33	34	34	35	36	36	37
Geography .....	21	22	23	23	23	23	23	23	23
History and philosophy of science .....	0	0	0	0	0	0	0	0	3
Linguistics .....	4	6	7	7	7	7	7	7	7
Political science .....	99	101	103	104	111	113	113	111	111
Sociology .....	41	44	45	45	46	47	45	47	48
Sociology/anthropology .....	3	2	2	2	2	2	2	2	1
Social sciences, n.e.c. ....	56	60	61	68	76	75	76	76	81
Engineering, total .....	169	169	168	171	177	180	173	181	185
Aerospace engineering .....	3	2	2	2	4	4	3	3	3
Agricultural engineering .....	0	0	0	0	0	0	0	0	0
Biomedical engineering .....	3	3	3	4	4	4	3	4	4
Chemical engineering .....	6	7	7	7	7	8	8	8	8
Civil engineering .....	30	30	29	30	32	35	35	35	34
Electrical engineering .....	40	39	40	40	40	42	42	44	44
Engineering science .....	2	2	2	2	2	2	2	2	2
Industrial eng./manufacturing eng. ....	26	27	28	28	28	30	28	27	30
Mechanical engineering .....	24	23	22	23	23	24	22	23	25
Metallurgical/materials eng. ....	6	6	6	6	6	5	4	5	4
Mining engineering .....	4	4	4	4	4	2	2	2	2
Nuclear engineering .....	0	0	0	0	0	0	0	0	0
Petroleum engineering .....	1	1	1	1	1	1	1	1	1
Engineering, n.e.c. ....	24	25	24	24	26	23	23	27	28

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 3. Number of science, engineering, and health departments  
in master's-granting institutions, by detailed field: 1991-1998**

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Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, health fields .....	151	164	175	182	193	207	219	231	239
Medical fields, total .....	7	9	11	13	16	17	15	16	18
Anesthesiology .....	1	1	2	3	3	3	2	3	3
Cardiology .....	0	0	0	0	0	0	0	0	0
Oncology/cancer research .....	0	0	0	0	0	0	0	0	0
Endocrinology .....	0	0	0	0	0	0	0	0	0
Gastroenterology .....	0	0	0	0	0	0	0	0	0
Hematology .....	0	0	0	0	0	0	0	0	0
Neurology .....	0	0	0	0	0	0	0	0	0
Obstetrics and gynecology .....	0	0	0	0	0	0	0	0	0
Ophthalmology .....	0	0	0	0	0	0	0	0	0
Otorhinolaryngology .....	0	0	0	0	0	0	0	0	0
Pediatrics .....	0	0	0	0	0	0	0	0	0
Preventive medicine/community health .....	4	6	6	7	8	8	8	8	9
Psychiatry .....	1	1	1	1	2	2	1	1	1
Pulmonary disease .....	0	0	0	0	0	0	0	0	0
Radiology .....	0	0	0	0	0	1	1	1	1
Surgery .....	0	0	0	0	0	0	0	0	0
Clinical medicine, n.e.c. .....	1	1	2	2	3	3	3	3	4
Other health fields, total .....	144	155	164	169	177	190	204	215	221
Dental sciences .....	0	0	0	0	0	0	0	0	0
Nursing .....	45	49	52	55	58	67	70	74	75
Pharmaceutical sciences .....	3	2	2	2	1	1	1	1	3
Speech pathology/audiology .....	50	55	56	55	56	58	62	64	66
Veterinary sciences .....	1	1	1	1	1	1	1	1	1
Health related, n.e.c. .....	45	48	53	56	61	63	70	75	76

**KEY:** n.e.c. = Not elsewhere classified

**SOURCE:** National Science Foundation/Division of Science Resource Studies, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 4. Original departmental response rates: 1975-1998**

Year	Total	Complete response	Percent	Partial response	Percent	Non-response	Percent
1975 .....	9,162	8,998	98.2	N/A	N/A	N/A	N/A
1976 .....	9,275	9,148	98.6	N/A	N/A	N/A	N/A
1977 .....	9,513	9,432	99.1	N/A	N/A	N/A	N/A
1978 <sup>1</sup> .....	8,242	8,077	98.0	N/A	N/A	N/A	N/A
1979 .....	9,796	9,446	96.4	N/A	N/A	N/A	N/A
1980 .....	9,930	9,593	96.6	N/A	N/A	N/A	N/A
1981 .....	9,917	8,594	86.7	613	6.2	710	7.2
1982 .....	9,776	8,104	82.9	744	7.6	928	9.5
1983 .....	9,663	8,070	83.5	816	8.4	777	8.0
1984 <sup>2</sup> .....	8,748	7,490	85.6	643	7.4	615	7.0
1985 <sup>2</sup> .....	9,025	7,818	86.6	672	7.4	535	5.9
1986 <sup>2</sup> .....	9,097	7,817	85.9	779	8.6	501	5.5
1987 <sup>2</sup> .....	9,254	8,030	86.8	715	7.7	509	5.5
1988 .....	10,295	8,812	85.6	970	9.4	513	5.0
1989 .....	10,318	8,908	86.3	891	8.6	519	5.0
1990 .....	10,483	8,884	84.7	1,053	10.0	546	5.2
1991 .....	10,705	9,052	84.6	1,186	11.1	467	4.4
1992 .....	10,936	9,066	82.9	1,538	14.1	332	3.0
1993 .....	11,146	9,156	82.1	1,555	14.0	435	3.9
1994 .....	11,411	8,863	77.7	2,109	18.5	439	3.8
1995 .....	11,598	9,514	82.0	1,730	14.9	354	3.1
1996 .....	11,592	9,851	85.0	1,522	13.1	219	1.9
1997 .....	11,597	9,720	83.8	1,665	14.4	212	1.8
1998 .....	11,718	9,822	83.8	1,706	14.6	190	1.6

<sup>1</sup> Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

<sup>2</sup> Master's-granting institutions were surveyed on a sample basis from 1984 through 1987.

**NOTE:** Departments providing partial responses are included in the complete response column prior to 1981 and reported separately beginning in 1981.

**KEY:** N/A = Not available

**SOURCE:** National Science Foundation/Division of Science Resources Studies, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 5. Imputation for nonresponse in doctorate-granting institutions,  
by field and enrollment status: 1996-1998**

Area of science and engineering	Number of graduate departments		Graduate enrollment								
			Total in survey			Number imputed			Imputation rate (percent)		
	In universe	Totally imputed	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates
Fall 1998											
Total, all areas .....	10,117	170	301,544	121,290	39,494	4,671	3,026	759	1.5	2.5	1.9
Engineering .....	1,455	9	63,806	29,979	2,819	443	334	21	.7	1.1	.7
Physical sciences .....	576	6	25,728	3,392	5,892	114	8	9	.4	.2	.2
Earth, atmospheric, & ocean sciences .....	358	6	9,952	2,808	893	135	30	44	1.4	1.1	4.9
Mathematical sciences .....	388	5	11,126	3,312	274	268	75	4	2.4	2.3	1.5
Computer sciences .....	291	7	17,470	13,597	363	307	93	8	1.8	.7	2.2
Agricultural sciences .....	333	4	8,529	2,492	656	88	22	7	1.0	.9	1.1
Biological sciences .....	1,972	28	45,054	7,650	15,474	1,019	96	176	2.3	1.3	1.1
Psychology .....	569	15	29,032	10,757	606	785	310	8	2.7	2.9	1.3
Social sciences .....	1,315	19	49,828	22,407	382	584	687	0	1.2	3.1	.0
Health fields .....	2,860	71	41,019	24,896	12,135	928	1,371	482	2.3	5.5	4.0
Fall 1997											
Total, all areas .....	10,032	178	302,338	123,694	38,103	4,641	3,204	757	1.5	2.6	2.0
Engineering .....	1,433	21	63,835	30,869	2,944	606	899	20	.9	2.9	.7
Physical sciences .....	572	7	26,268	3,384	5,864	152	70	8	.6	2.1	.1
Earth, atmospheric, & ocean sciences .....	349	7	9,934	3,052	934	193	21	30	1.9	.7	3.2
Mathematical sciences .....	391	7	11,529	3,304	302	144	50	2	1.2	1.5	.7
Computer sciences .....	284	5	16,502	13,590	315	301	387	0	1.8	2.8	.0
Agricultural sciences .....	328	1	8,677	2,401	692	30	1	5	.3	.0	.7
Biological sciences .....	1,952	26	45,063	7,807	14,916	646	108	199	1.4	1.4	1.3
Psychology .....	565	20	29,194	10,690	567	784	556	1	2.7	5.2	.2
Social sciences .....	1,317	33	51,609	22,716	362	892	403	3	1.7	1.8	.8
Health fields .....	2,841	51	39,727	25,881	11,207	893	709	489	2.2	2.7	4.4
Fall 1996											
Total, all areas .....	10,059	200	304,720	128,092	37,028	6,116	2,294	1,068	2.0	1.8	2.9
Engineering .....	1,412	14	64,074	32,588	2,662	829	398	13	1.3	1.2	.5
Physical sciences .....	570	8	27,317	3,515	5,803	400	19	58	1.5	.5	1.0
Earth, atmospheric, & ocean sciences .....	347	7	10,255	3,427	859	244	98	9	2.4	2.9	1.0
Mathematical sciences .....	393	9	12,324	3,671	326	279	56	7	2.3	1.5	2.1
Computer sciences .....	281	4	15,633	13,478	247	545	145	8	3.5	1.1	3.2
Agricultural sciences .....	318	3	8,882	2,347	665	69	49	5	.8	2.1	.8
Biological sciences .....	1,980	38	45,837	7,843	14,918	1,011	163	322	2.2	2.1	2.2
Psychology .....	558	19	28,988	10,429	589	844	252	0	2.9	2.4	.0
Social sciences .....	1,316	34	53,212	23,898	444	1,219	655	2	2.3	2.7	.5
Health fields .....	2,884	64	38,198	26,896	10,515	676	459	644	1.8	1.7	6.1

**SOURCE:** National Science Foundation/Division of Science Resources Studies, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 6. Imputation for nonresponse in master's-granting institutions,  
by field and enrollment status: 1996-1998**

Area of science and engineering	Number of graduate departments		Graduate enrollment								
			Total in survey			Number imputed			Imputation rate (percent)		
	In universe	Totally imputed	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates
Fall 1998											
Total, all areas .....	1,601	20	26,065	36,855	125	424	549	28	1.6	1.5	22.4
Engineering .....	185	0	1,943	4,559	11	0	0	0	.0	.0	.0
Physical sciences .....	121	2	672	773	80	15	21	28	2.2	2.7	35.0
Earth, atmospheric, & ocean sciences .....	68	1	537	1,067	4	3	8	0	.6	.7	.0
Mathematical sciences .....	110	1	656	1,369	0	1	0	0	.2	.0	.0
Computer sciences .....	94	1	2,267	4,516	5	8	6	0	.4	.1	.0
Agricultural sciences .....	31	0	471	319	10	0	0	0	.0	.0	.0
Biological sciences .....	178	0	1,954	2,402	6	0	0	0	.0	.0	.0
Psychology .....	248	6	6,550	6,716	6	282	321	0	4.3	4.8	.0
Social sciences .....	327	8	3,942	7,648	1	102	147	0	2.6	1.9	.0
Health fields .....	239	1	7,073	7,486	2	13	46	0	.2	.6	.0
Fall 1997											
Total, all areas .....	1,573	32	24,711	36,628	115	1,063	659	0	4.3	1.8	0.0
Engineering .....	181	5	1,751	4,578	7	81	95	0	4.6	2.1	.0
Physical sciences .....	121	0	624	832	71	0	0	0	.0	.0	.0
Earth, atmospheric, & ocean sciences .....	66	2	616	1,042	4	18	6	0	2.9	.6	.0
Mathematical sciences .....	111	0	615	1,281	2	0	0	0	.0	.0	.0
Computer sciences .....	92	4	1,832	4,072	3	159	128	0	8.7	3.1	.0
Agricultural sciences .....	30	0	433	303	9	0	0	0	.0	.0	.0
Biological sciences .....	176	0	1,934	2,331	8	0	0	0	.0	.0	.0
Psychology .....	247	7	6,413	6,910	7	569	249	0	8.9	3.6	.0
Social sciences .....	318	12	3,879	7,819	0	218	174	0	5.6	2.2	.0
Health fields .....	231	2	6,614	7,460	4	18	7	0	.3	.1	.0
Fall 1996											
Total, all areas .....	1,532	18	23,733	37,674	79	236	871	0	1.0	2.3	0.0
Engineering .....	173	3	1,777	4,784	12	5	73	0	.3	1.5	.0
Physical sciences .....	117	1	639	884	36	0	18	0	.0	2.0	.0
Earth, atmospheric, & ocean sciences .....	63	0	571	1,027	2	0	0	0	.0	.0	.0
Mathematical sciences .....	107	0	642	1,378	0	0	0	0	.0	.0	.0
Computer sciences .....	92	2	1,540	3,941	3	63	99	0	4.1	2.5	.0
Agricultural sciences .....	31	0	416	269	12	0	0	0	.0	.0	.0
Biological sciences .....	174	1	1,907	2,541	8	1	32	0	.1	1.3	.0
Psychology .....	239	2	6,480	7,312	5	56	148	0	.9	2.0	.0
Social sciences .....	317	8	3,700	7,837	0	87	432	0	2.4	5.5	.0
Health fields .....	219	1	6,061	7,701	1	24	69	0	.4	.9	.0

**SOURCE:** National Science Foundation/Division of Science Resources Studies, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 7. Imputation rates for all departments**

**at all graduate institutions: fall 1998**

[ Number of imputed departments = 1,896 ]

Items 5 and 6 Enrollment status, mechanism of support, and gender of S&E graduate students	Students receiving financial assistance											Self support (includ. loans & family sources)	Total for all sources (sum of columns A - K)		
	Federal sources (excluding loans)						Non-Federal sources								
	DoD	HHS		NSF	Dept. of Agr.	NASA	Other Federal sources	Inst. support	Foreign sources	Other U.S. sources					
		(B)	(C)												
Item 5 Full-time graduate S&E students:															
Graduate fellowships .....	3.5	5.0	20.2	7.6	2.1	5.8	5.8	7.4	7.9	7.0	NA	7.2			
Graduate traineeships .....	26.9	9.4	16.4	6.1	28.6	6.8	13.0	9.3	12.6	12.9	NA	10.9			
Graduate research assistants .....	11.2	10.7	6.4	9.9	4.4	8.8	8.2	11.3	5.5	8.1	NA	9.9			
Graduate teaching assistants .....	NA	17.7	22.6	3.7	16.2	39.1	8.7	9.8	NA	12.8	NA	9.8			
Other types of support .....	70.4	10.4	12.9	3.0	1.7	0.0	17.8	15.5	12.5	6.4	19.1	18.8			
Full-time total .....	24.0	10.0	14.0	9.3	4.5	8.4	9.2	10.4	9.4	7.9	19.1	1.6			
Full-time women .....	18.2	10.5	17.3	7.7	6.7	7.9	12.2	12.2	8.5	7.9	22.3	5.2			
Full-time first-time total .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.1			
Full-time first-time women .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.9			
Item 6 Part-time graduate S&E students:															
Total .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3			
Women .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.5			

Item 7 Race/ethnicity of full-time and part-time graduate S&E students, by sex	U.S. citizens and permanent residents								Total (sum of columns A - H)	
	Black non- Hispanic (A)	American Indian/ Alaskan Native (B)	Asian/ Pacific Islander (C)	Hispanic (D)	White non- Hispanic (E)	Other (F)	Unknown (G)	Foreign (H)		
Men enrolled full-time .....	9.6	2.8	6.9	6.8	7.5	6.0	8.1	7.8	4.6	
Women enrolled full-time .....	10.0	3.7	5.2	7.9	7.6	8.4	9.5	6.5	5.2	
Full-time, total .....	9.8	3.3	6.1	7.4	7.5	7.1	7.9	7.3	1.6	
Men enrolled part-time .....	10.4	3.7	8.6	9.3	11.3	14.5	10.3	11.1	6.8	
Women enrolled part-time .....	10.9	3.5	6.1	11.9	10.5	5.7	9.8	11.1	6.5	
Part-time, total .....	10.7	3.6	7.5	10.6	10.9	10.3	10.0	11.1	2.3	

Item 8 S&E postdoctorates and nonfaculty research staff with doctorates	Postdoctorates							Other non- faculty research staff with doctor- ates (G)					
	Source of support				Non- Federal (D)	Total for all sources (A - D) (E)	Foreign postdoc- torates (F)						
	Federal												
	Fellow- ships (A)	Trainee- ships (B)	Research grants (C)										
Total .....	6.9	13.2	10.0	11.5	5.7	5.8	5.6						
Women .....	5.4	11.5	9.4	10.0	5.9	6.0	6.0						
With MD, DDS or DVM degrees .....	6.8	13.3	8.7	8.9	5.6	4.8	5.0						

**KEY:** NA = not applicable

**SOURCE:** National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 8. Comparison of graduate enrollment data as originally published and as modified through the fall 1998 graduate student survey cycle: 1975-1998**

Page 1 of 2

Year	Total, all institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original total	Revised total	Percent change	Original total	Revised total	Percent change	Original total	Revised total	Percent change
Total graduate enrollment in surveyed fields									
1975 <sup>1</sup> .....	336,843	328,550	-2.5	290,662	295,718	1.7	46,181	32,832	-28.9
1976 .....	345,979	333,755	-3.5	297,280	299,916	.9	48,699	33,839	-30.5
1977 .....	362,978	345,416	-4.8	306,710	307,763	.3	56,268	37,653	-33.1
1978 <sup>2</sup> .....	N/A	339,912	N/A	311,982	300,854	-3.6	N/A	39,058	N/A
1979 .....	375,267	357,609	-4.7	321,770	317,086	-1.5	53,497	40,523	-24.3
1980 .....	383,210	367,111	-4.2	333,658	326,608	-2.1	49,552	40,503	-18.3
1981 .....	392,034	375,158	-4.3	340,203	333,270	-2.0	51,831	41,888	-19.2
1982 .....	399,682	382,334	-4.3	347,414	339,776	-2.2	52,268	42,558	-18.6
1983 .....	413,564	390,474	-5.6	358,276	346,591	-3.3	55,288	43,883	-20.6
1984 <sup>3</sup> .....	415,064	394,670	-4.9	363,470	348,895	-4.0	51,594	45,775	-11.3
1985 <sup>3</sup> .....	434,836	404,021	-7.1	371,052	358,255	-3.4	63,784	45,766	-28.2
1986 <sup>3</sup> .....	446,102	415,542	-6.9	384,203	368,840	-4.0	61,899	46,702	-24.6
1987 <sup>3</sup> .....	449,585	421,512	-6.2	388,681	374,375	-3.7	60,904	47,137	-22.6
1988 .....	445,595	424,613	-4.7	391,683	380,160	-2.9	53,912	44,453	-17.5
1989 .....	440,983	434,567	-1.5	385,025	387,632	.7	55,958	46,935	-16.1
1990 .....	458,943	452,178	-1.5	398,405	401,323	.7	60,538	50,855	-16.0
1991 .....	475,691	471,262	-.9	411,296	416,646	1.3	64,395	54,616	-15.2
1992 .....	495,397	493,632	-.4	427,792	435,696	1.8	67,605	57,936	-14.3
1993 .....	506,678	504,449	-.4	440,875	443,757	.7	65,803	60,692	-7.8
1994 .....	506,626	504,542	-.4	441,480	444,093	.6	65,146	60,449	-7.2
1995 .....	501,510	499,732	-.4	436,328	438,306	.5	65,182	61,426	-5.8
1996 .....	494,526	494,219	-.1	430,631	432,812	.5	63,895	61,407	-3.9
1997 .....	487,104	487,371	.1	424,650	426,032	-.3	62,454	61,339	-1.8
1998 .....	485,754	N/A	N/A	422,834	N/A	N/A	62,920	N/A	N/A
Full-time									
1975 <sup>1</sup> .....	228,316	219,687	-3.8	210,641	207,494	-1.5	17,675	12,193	-31.0
1976 .....	233,748	223,446	-4.4	215,355	211,288	-1.9	18,393	12,158	-33.9
1977 .....	238,202	226,776	-4.8	218,226	213,343	-2.2	19,976	13,433	-32.8
1978 <sup>2</sup> .....	N/A	223,030	N/A	217,588	209,198	-3.9	N/A	13,832	N/A
1979 .....	243,331	231,790	-4.7	224,057	217,546	-2.9	19,274	14,244	-26.1
1980 .....	249,111	238,448	-4.3	230,601	223,720	-3.0	18,510	14,728	-20.4
1981 .....	253,428	242,076	-4.5	234,529	227,523	-3.0	18,899	14,553	-23.0
1982 .....	255,959	244,796	-4.4	237,676	230,599	-3.0	18,283	14,197	-22.3
1983 .....	263,800	252,055	-4.5	243,646	236,520	-2.9	20,154	15,535	-22.9
1984 <sup>3</sup> .....	264,146	253,922	-3.9	246,848	237,542	-3.8	17,298	16,380	-5.3
1985 <sup>3</sup> .....	269,319	257,287	-4.5	249,666	241,149	-3.4	19,653	16,138	-17.9
1986 <sup>3</sup> .....	279,235	266,182	-4.7	259,980	249,850	-3.9	19,255	16,332	-15.2
1987 <sup>3</sup> .....	285,200	271,066	-5.0	264,862	254,415	-3.9	20,338	16,651	-18.1
1988 .....	288,619	275,194	-4.7	268,385	259,897	-3.2	20,234	15,297	-24.4
1989 .....	286,619	282,719	-1.4	267,554	267,094	-.2	19,065	15,625	-18.0
1990 .....	295,836	292,830	-1.0	275,262	275,768	.2	20,574	17,062	-17.1
1991 .....	308,669	307,040	-.5	286,756	288,250	.5	21,913	18,790	-14.3
1992 .....	323,399	322,609	-.2	299,753	302,226	.8	23,646	20,383	-13.8
1993 .....	330,249	329,679	-.2	307,181	308,195	.3	23,068	21,484	-6.9
1994 .....	331,969	332,129	.0	307,964	309,817	.6	24,005	22,312	-7.1
1995 .....	330,235	329,148	-.3	305,652	306,125	.2	24,583	23,023	-6.3
1996 .....	328,368	328,453	.0	303,586	304,720	.4	24,782	23,733	-4.2
1997 .....	326,842	327,049	.1	301,573	302,338	.3	25,269	24,711	-2.2
1998 .....	327,609	N/A	N/A	301,544	N/A	N/A	26,065	N/A	N/A

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 8. Comparison of graduate enrollment data as originally published and as modified through the fall 1998 graduate student survey cycle: 1975-1998**

Page 2 of 2

Year	Total, all institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original total	Revised total	Percent change	Original total	Revised total	Percent change	Original total	Revised total	Percent change
Part-time									
1975 <sup>1</sup> .....	108,527	108,863	0.3	80,021	88,224	10.3	28,506	20,639	-27.6
1976 .....	112,231	110,309	-1.7	81,925	88,628	8.2	30,306	21,681	-28.5
1977 .....	124,776	118,640	-4.9	88,484	94,420	6.7	36,292	24,220	-33.3
1978 <sup>2</sup> .....	N/A	116,882	N/A	94,394	91,656	-2.9	N/A	25,226	N/A
1979 .....	131,936	125,819	-4.6	97,713	99,540	1.9	34,223	26,279	-23.2
1980 .....	134,099	128,663	-4.1	103,057	102,888	-.2	31,042	25,775	-17.0
1981 .....	138,606	133,082	-4.0	105,674	105,747	.1	32,932	27,335	-17.0
1982 .....	143,723	137,538	-4.3	109,738	109,177	-.5	33,985	28,361	-16.5
1983 .....	149,764	138,419	-7.6	114,630	110,071	-4.0	35,134	28,348	-19.3
1984 <sup>3</sup> .....	150,918	140,748	-6.7	116,622	111,353	-4.5	34,296	29,395	-14.3
1985 <sup>3</sup> .....	165,517	146,734	-11.3	121,386	117,106	-3.5	44,131	29,628	-32.9
1986 <sup>3</sup> .....	166,867	149,360	-10.5	124,223	118,990	-4.2	42,644	30,370	-28.8
1987 <sup>3</sup> .....	164,385	150,446	-8.5	123,819	119,960	-3.1	40,566	30,486	-24.8
1988 .....	156,976	149,419	-4.8	123,298	120,263	-2.5	33,678	29,156	-13.4
1989 .....	154,364	151,848	-1.6	117,471	120,538	2.6	36,893	31,310	-15.1
1990 .....	163,107	159,348	-2.3	123,143	125,555	2.0	39,964	33,793	-15.4
1991 .....	167,022	164,222	-1.7	124,540	128,396	3.1	42,482	35,826	-15.7
1992 .....	171,998	171,023	-.6	128,039	133,470	4.2	43,959	37,553	-14.6
1993 .....	176,429	174,770	-.9	133,694	135,562	1.4	42,735	39,208	-8.3
1994 .....	174,657	172,413	-1.3	133,516	134,276	.6	41,141	38,137	-7.3
1995 .....	171,275	170,584	-.4	130,676	132,181	1.2	40,599	38,403	-5.4
1996 .....	166,158	165,766	-.2	127,045	128,092	.8	39,113	37,674	-3.7
1997 .....	160,262	160,322	.0	123,077	123,694	-.5	37,185	36,628	-1.5
1998 .....	158,145	N/A	N/A	121,290	N/A	N/A	36,855	N/A	N/A

<sup>1</sup> The 1976 survey also collected 1975 data from master's-granting institutions.

<sup>2</sup> Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

<sup>3</sup> These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984 through 1987. See "Technical Notes" for further information.

**NOTE:** The percent change column is presented as a measure of retroactive changes in survey definitions. Three survey changes in the late 1980s and early 1990s had a retroactive effect on figures reported for earlier years. First, degree-granting status (doctorate or master's) used to be determined by an institution's status each year. Beginning in 1992, degree-granting status was determined by the status reported in the latest survey year. This change shifted numerous institutions (and students) from master's-granting to doctorate-granting categories for years before 1992. Second, in 1988 guidelines to determine S&E departments were tightened. This change meant retroactively dropping departments in fields like educational psychology, social work, and cultural studies from the survey population. Third, improved estimates were generated for years in which enrollments at master's-granting institutions were sampled (1984-87).

**KEY:** N/A = Not available

**SOURCE:** National Science Foundation/Division of Science Resources Studies, Survey of Graduate Students and Postdoctorates in Science and Engineering